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Montana. Dept. of Administration. Computer Services Division
CSD news & views

VOL 2 #1

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NEWS & VIEWS
A Publication Of The Computer Services Division
Department Of Administration
State Of Montana

February 24, 1983
Vol. 2, No. 1

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SYSTEM DEVELOPMENT EXPANDS

There are several new faces in the Systems Development Bureau. If you missed an introduction, here is a rundown on the new employees:

- Barney Benkelman. Barney comes to us from Seattle where he worked for Boeing Computer Services. Barney is originally from Polson.
- Anita Bangert. Anita is relatively new to Helena, having moved here from Joliet, Illinois last August. Anita was previously employed with the FACTS Corporation.
- Dennis Espeland. Dennis is a native of Montana who has just spent a couple of years in Denver. Some of you no doubt remember Dennis from his work on a database project while a student at Eastern Montana College. Dennis is originally from Billings.
- Darrell Hagen. Darrell needs little introduction as most of us know Darrell from his days at the Highway Department. Darrell is just back from A/S Computers in Oslo, Norway where he worked as a Senior Systems Consultant.
- Ron Heilman. Ron gets the long distance award, making the trip from St. Cloud, Minnesota. Ron has just graduated from St. Cloud State University where he majored in Quantitative Methods and Information Systems.
- David Marshall. David has been hired to devote his time exclusively to small business systems (micro computers). David will be concentrating on micros in order to provide assistance for agencies considering the use of one of the many small systems now on the market. David is originally from Mankato, Minnesota but has spent the past several years in Gardiner and Bozeman.
- Shelley Smetana. Shelley is from Moscow, Idaho but comes to Helena from Washington State (Pullman, WA) where she just graduated with a degree in Business Administration, Computer Science option.

Please join me in welcoming the new staff members to CSD.

Office Moves

The Text Processing Unit has moved to room 7 (across the hall from Technical Services). The change to a more spacious and pleasant work place was welcomed by members of the Text unit. They do not miss the unique odors emanating from Sparky's cafeteria]

Dave Smith's office has been relocated to room six (next to Text Processing) and Ron Dobmeier has moved out of the teleprocessing area into Dave's old office. Dave is now more centrally located among the units he supervises and Ron has been provided with a much-needed private office.

Data Management Services Bureau has moved into newly renovated quarters in room 25 (their old location). There is now enough room for their expanded staff.

Forms Storage

CSD has lost its forms storage area. All of the forms are now stored in an area considerably smaller than the previous area. We will stock smaller quantities of standard forms and will not be able to store all of the user's special forms as we have in the past. Before ordering forms that will be stored with CSD, please check with Dave Smith at 449-2596.

Plotter Note

CSD now offers the services of its plotter at night. Frances Green, Production Specialist from 4:30 pm to 12:00 pm, will run plot requests during these hours, workload permitting.

RECORDS MANAGEMENT

The Records Management Bureau is now receiving the tape for position control from the State Auditor, Central Payroll. Central Services Division administrators may wish to reduce their paper flow by having this information microfiched. In all cases the position control data for any department or division will be contained on one fiche. The cost for one fiche is $2.63, the cost for duplicating fiche is $0.12 each.

We are also examining the possibility of producing PAMS in fiche form. If any administrators have an interest in this, please contact the Records Management Bureau (449-2716).

With the acquisition of a new forms slide, we are now able to offer users 417 images per fiche (from 8 1/2" x 11" letter size format) instead of the 269 images previously available. This increases the amount of information per fiche by 55 percent at no increase in cost.

Protocol Converter

The interactive computer systems run at CSD (TSO, CICS, ALTER) are designed for IBM 3270 type of equipment. This prohibits the "ASCII Dumb" terminals from access to the host site at CSD.

Numerous "Dumb Terminals" exist in state government today. They are used with micro computers and for access to other main frames (MSU, U of M, etc.).

CSD has acquired a protocol converter (P.C.) which translates ASCII terminal codes into 3270 codes. The P.C. thus allows access to the interactive applications. Currently five brands of ASCII terminals - plus printers - are supported, either on leased lines or dial-up.

If you would like further information on this support, want a demo, or need to borrow a modem, please contact the Technical Services Bureau at 2596.

COLORED PAPER FOR THE 6670

We now carry a small quantity of variously colored paper for the 6670. If you would like to use colored paper, put your document in setup Z. Send operator 0 (the control operator) a message telling her what color(s) paper you want loaded into the 6670.

To send a message to control operator, clear your working storage. Type in the message, as you would a document, explaining who you are, what color paper you want, and in which drawer. Remember -- on your ocl, pap 1_ pulls paper from the primary drawer, pap 2_ pulls paper from the alternate drawer. If using only one color, please specify pap 2_ in your ocl. The other possibility is pap 3_, which pulls the first sheet of each copy from the alternate drawer, and the second and all following pages from the primary drawer. This works well when requesting multiple copies of a document and inserting a colored separator page between each copy.

The colors we have in stock now, along with orange are:

blue
green
cherry
pink
russet (tan)
canary
buff (off yellow)
goldenrod

Remember, we only have a small quantity of the colored paper on hand (maximum of one color at a time is 500 sheets). If you are considering running a big job that calls for colored paper, call us ahead of time so we can get the paper ordered.

If you have any questions about where you want the colored paper to come in, and where the text is to begin (especially on duplexed documents), call Jeanette Rushford at 2596.

New Information Guide

CSD has published a new "User Information Guide". The guide contains the important information from the old "Manual of Standards" and much new information on CSD services, operations and organization. You will find information on our hardware, the available software, and the state's teleprocessing system. Database management and CICS are explained in detail. Job classes, sysout classes, special forms and carriage tapes are discussed and a short data processing glossary is provided. We hope that all of our users will read and use the "Information Guide". Contact Wendy Wheeler in User Services, 449-2596 if you haven't received your copy of the Guide.

VSAM DATASETS ON 3380

When redefining VSAM datasets on the 3380 disk drives, it is suggested that the allocation amount and CI (Control Interval) size be recalculated. The IBM manual, "VSAM Disk Space Calculation Charts" (GG24-1507-01) contains information on VSAM disk space utilization with different control interval sizes. The Technical Services Bureau has a copy of this manual that users may reference. To obtain your own copy, please order it thru IBM.

While IDCAMS does support the IMPORT of a cluster to a device type different from the EXPORT source device type, there are some rather significant limitations. When IMPORT is executed, the catalog information obtained from the catalog at EXPORT is used to 'DEFINE' the cluster. The specification for a CI size, buffer space, and allocation amount will not be changed. Thus the specification may not be appropriate to a new device type. In particular, the specification for index CI size may be such that it will not be able to contain an entry for each CI in a CA (Control Area - 1 cylinder). This can happen with 3380 devices since they will contain more CI's/CA than 3350's.

Since VSAM will only handle physical record sizes of 512, 1024, 2048 and 4096 bytes, care must be taken when choosing a CI size. For example, a CI size of 6K may not be the most efficient. VSAM would end up writing 3 2K physical records for a CI size of 6K. CI sizes which are multiples of 4K will generally produce the best space utilization, about 86 percent for 3380's. CI's which consist of 2K blocks will result in track utilizations of 78 percent for the 3380's.

The memo "VSAM Datasets", dated 8/5/80 (copies available from User Services) along with the IBM manual will help in redefining VSAM datasets on 3380's.

BLOCK DATASETS FOR 3380'S

The migration of TSO datasets residing on 3350 direct access storage devices (DASD) to 3380 devices was completed by the Data Management Services Bureau on January 25, 1983. Owners of TSO datasets should have received a report listing the 3380 volume their datasets were moved to.

As suggested in the December 20, 1982 issue of NEWS & VIEWS on page 4, users are urged to reblock their TSO datasets to a blocksize of 6160 for 80 byte logical records or a blocksize of 6144 (or 6233) for load module libraries. Reblocking was not done at the time of migration.

The quantity of disk storage used can be substantially reduced by increasing the blocksize, thereby reducing your disk storage charges. In addition, the number of disk I/Os required to store or retrieve your datasets will be decreased. This will reduce your TSO charges.

The amount of space reduction depends on the number of dataset members, the average number of records in each member and what the old blocksize was. The greatest reductions will be with datasets with members that have many records or datasets with small original blocksizes.

Disk space savings have been reported as high as about 30%. Note these examples of reblocked TSO datasets:

# of members	total # of RECORDS	record length	old block-SIZE	disk space TRACKS	new block-SIZE	disk space TRACKS	disk space SAVINGS
120	14,617	80	800	43	6160	31	28%
74	5,084	80	800	16	6160	12	25%
34	1,918	80	3600	5	6160	5	0%

Although only limited space savings may result from reblocking datasets with few total records or few records for each member, you will still realize the savings in TSO charges.

You may use the following procedure to reblock your TSO datasets:

1. SPF 3.2 DISPLAY DATASET INFORMATION for the original dataset to be reblocked.
2. SPF 3.2 ALLOCATE NEW DATASET for a temporary dataset and change the blocksize.
3. SPF 3.3 COPY MEMBERS from the original dataset to the temporary dataset. Remember to specify MEMBER ===> * to copy all members.
4. SPF 3.2 RENAME ENTIRE DATASET (the original dataset) to the name of a second temporary dataset.
5. SPF 3.2 RENAME ENTIRE DATASET (the first temporary dataset) to the name of the original dataset.
6. Check the contents of your reblocked dataset from the above step to be sure the copy, renaming, etc. was successful. If there is a problem, your original data is still available in the second temporary dataset.
7. The two temporary datasets will be archived and scratched overnight automatically.

If you have questions about reblocking your TSO datasets, please contact the Data Management Services Bureau in room 25 or call 449-2596.

BASIC DATA COMMUNICATIONS PROBLEM DETERMINATION

Before you call CSD for help with your data communications problems there are a number of things you can check first:

1. ELECTRICAL OUTLETS

- Check to see that all units are properly plugged into the wall outlets.
- Check that the wall outlets are working properly. Plug another appliance in outlet if there is any doubt.

2. DEVICE CABLES

- Check that both connectors on each end of the cable are properly connected between each device.
- Some cables between the control unit and modem have a feature that allows the display unit to run a wrap test through the control unit. Make sure this Test/Operate switch is on Operate.
- If you suspect a cable problem between a control unit and a display unit, isolate the problem by switching cables with a known working display station.

3. DISPLAY STATIONS

- There are basically two types of display stations on our network.
  - Type A display stations. Advanced testing and diagnostic features. Will generally show the cause of the problem in the Operator Information Area. For an explanation of the data displayed in the Operator Information Area or further problem isolation use the Problem Determination Guide located in the keyboard.
  - Type B display stations. Some quick diagnostics for Type B terminals are as follows:
    - If there is no cursor and the brightness control knob is turned clockwise as far as it goes, then you have a probable machine failure.
    - If you do not have a System Available light then you are not making contact with the host system. Check the cables, control unit, modem, and then call the computer center.

  - For further diagnostic aid use the proper Problem Determination Guide for your display station.

4. CONTROL UNITS

Control units are also divided into Type A and Type B categories.

- Type A control units. IBM 3274 and IBM 3276 type devices. Advanced diagnostic features. Will send messages to the attached terminals as well as having lights on the Control Unit to aid in problem determination.

- Type B control units. The only diagnostic aids are the lights on the control unit.

  For quick problem determination, check how many display devices attached to this control unit are failing. If only one is down then the problem probably lies in that terminal, its device cable, or it has been inactivated by the host system. To expedite problem analysis use your Problem Determination Guide for your control unit.

5. COMMUNICATIONS FACILITIES

The communications facilities consist of the modem at the users site, the telephone line between modems, and the modem at the host system.

- Get familiar with the normal pattern of lights on your modem.
  - No lights on means no power to the modem so check the power source.
  - If the DCD or Carrier Detect light is out then you have lost communications with the host system; check wires from back of modem to the telephone jack.
  - If the ER or Data Quality Poor lights blink on and off then you are having transmission problems on the telephone line.
  - If the ER or Modem Check light is on steady there is probably a problem with the modem. Call CSD Help Desk.

Familiarity with the data communications equipment at your site and its normal running conditions will greatly aid you in your analysis of problems. Using the Problem Determination Guides furnished by your equipment vendors will give a systematical approach to problem determination.

If you need help or have determined that the problem could be in the communications facilities or host system, call our HELP DESK at 449-4642. Please be ready to give us your name, phone number, location, terminal ID, and nature of the problem.

EDUCATIONAL NEWS

The following classes are available from Computer Services Division:

VIDEO-BASED TRAINING

- Culprit:
  - A parameter driven language used to generate reports from standard files.
  - Medium: (11) Videos
  - Cost: $100
- IDMS/DB:
  - Introduction to database management, database design and coding.
  - Medium: (20) Videos
  - Cost: $100
- Interactive Data Dictionary:
  - Detailed instruction in the use of the data dictionary and its role in documenting the logical and physical organization of data.
  - Medium: (12) Videos
  - Cost: $100
- Structured Database Analysis and Design:
  - A methodology for logical and physical design of databases.
  - Medium: (5) Videos
  - Cost: $50
- Making It Count:
  - An entry-level course which provides a solid foundation of concepts and vocabulary on a broad range of data processing subjects.
  - Medium: (23) Videos
  - Cost: N/C
- Application Development System
  - Introduction to the use of ADS/Online, a system which speeds the development of online applications.
  - Medium: (13 Videos)
  - Cost: $100

SCHEDULE OF CLASSES

COURSE	DATES		TIME	PLACE
IDMS	3/14 - 3/25	M-F	8-12	CSD Conf. Room
Culprit for Programmers	3/28 - 4/1	M-F	1-5	CSD Conf. Room
Culprit for End-Users	4/4 - 4/15	M-F	1-5	CSD Conf. Room
Database Design	4/18 - 4/20	M-W	1-5	CSD Conf. Room
Application Development System	5/9 - 5/20	M-F	8-12	CSD Conf. Room
Making It Count	5/9 - 5/20	M-F	2:30-4:30	CSD Conf. Room
Small Computer Systems	5/23 - 5/24	M&T	8-5	TBA

COMPUTER-BASED TRAINING

- Learning to Code OS/VS JCL
    - Introduction to Job Control Language syntax and usage.
- CICS/VS Command Level Programming
    - Fundamentals of CICS/VS command level coding for application programmers familiar with COBOL, PL/1, or Assembler.
- Document Composition Facility (SCRIPT/VS)
    - Introduction to the text processing capabilities of SCRIPT/VS.
- 8100 DPCX Operator Training
    - Introduction to the commands that are used to control and monitor the 8100 DPCX distributed processing system.
- 3270 Operator Training
    - Introduction to the operation of the 3270 type terminal.
- ATMS Learn Lessons
    - Introducton to Advanced Text Management System text processing commands, syntax and usage.

To enroll in computer-based training courses complete the enrollment application that follows.

SURVEY

If you have any interest in additional computer-based training or a small computer seminar, please complete the following survey and return it to Wendy Wheeler in User Services.

EDUCATION SURVEY

NAME: ______________________ DEPT/DIV: ____________________
TITLE: ______________________ PHONE: ____________________

COMPUTER-BASED TRAINING

Additional computer-based training software is available. Please check the courses you would be most interested in.

____ Elementary Mathematics
____ English Communication Skills
____ Fundamental Accounting Principles
____ Fundamentals of Banking
____ Introducing the Computer
____ Introduction to TSO
____ PL/1 Programming
____ Programming in VSBASIC
____ STAIRS/VS Training Course
____ Using TSO Effectively II
____ VSAM and AMS for Programmers
____ System 370 Concepts and Facilities
____ VSAM Concepts
____ CICS/VS Concepts and Facilities
____ CICS/VS Command Level Extended Application Programming
____ Structured COBOL
____ MVS Concepts & Facilities
____ TSO/SPF: The Structured Program Facility
____ Assembler Language Coding
____ Developing DP Skills for End-Users
____ Introduction to Data Communications for End-Users
____ Learning to Program Using VSFORTRAN

SMALL COMPUTER SYSTEMS IN GOVERNMENT

If you are interested in attending a seminar regarding use of small computers in government please complete this section and complete the enrollment application.

Check the format you would most prefer:
____ One day seminar ____ Two day seminar

Check the topics you are most interested in:
____ Computer Terminology
____ Strengths and Weaknesses of Small Computers
____ Requirements Determination
____ Office Automation
____ Hardware/Software Configurations
____ Acquisition Alternatives
____ Application Design & Programming
____ Operating Systems
____ Security
____ Communication Networks
____ Software Packages
____ Statewide Standards
____ State of Montana's Small Computer Experiences
____ Other (Please specify)______________________________

CSD EDUCATION ENROLLMENT APPLICATION

PLEASE COMPLETE THE FOLLOWING APPLICATION AND RETURN
TO COMPUTER SERVICES DIVISION

COURSE: ______________________________

DATE: ______________________________

STUDENT(S): ______________________________

____

____

POSITION(S): ______________________________

____

____

AGENCY: ______________________________

PHONE: ______________________________

CSD BILLING NO: ______________________________

AUTHORIZED SIGNATURE: ______________________________